Atty. Dkt. No.: ARBG-004/07US U.S. Serial No.: 10/702,319

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the applications.

Listing of the Claims:

- 1. (Currently amended) An isolated polynucleotide sequence comprising a functional vascular tissue-specific *E. grandis* cOMT promoter contained in SEQ ID NO: 113.
- 2. (Currently amended) An isolated polynucleotide sequence comprising a sequence selected from the group consisting of:
- (a) the sequences recited in SEQ ID NO: 12, SEQ ID NO: 60, and nucleotides 1-1643 of SEQ ID NO: 113, nucleotides 1019-1643 of SEQ ID NO: 113 and their complements;
 - (b) reverse complements and reverse sequences of the sequences recited in (a);
 - (c) sequences having at least 75% identity to a sequence recited in (a);
 - (d) sequences having at least 90% identity to a sequence recited in (a);
- (e) a polynucleotide sequence that is substantially complementary to a sequence in (a) and hybridizes to said sequence under stringent conditions; and
- (f) a polynucleotide comprising a 20-mer, a 40-mer, a 60-mer, an 80-mer, a 100-mer, a 120-mer, a 150-mer, a 180-mer, a 220-mer, a 250-mer, a 300-mer, 400-mer, 500-mer or 600-mer of a sequence recited in (a) or (d) above.
- 3. (Currently amended) A genetic construct comprising a polynucleotide sequence of claim 1 or claim 2 selected from the group consisting of sequences recited in claim 1 above and the sequence identified as SEQ ID NO: 60.
- 4. (Currently amended) A genetic construct comprising, in the 5'-3'direction:
 - (a) a promoter sequence;
 - (b) a DNA sequence of interest; and
 - (c) a gene termination sequence,

wherein the promoter sequence comprises <u>a functional vascular tissue-specific E.</u>

grandis cOMT promoter contained in SEQ ID NO: 113 or a polynucleotide sequence of claim

2; SEQ ID NO: 12 or SEQ ID NO: 113, nucleotides 1019-1643

wherein said promoter sequence possesses vascular tissue-specific promoter function of the *E.grandis* cOMT gene.

- 5. (Original) The genetic construct of claim 4, wherein the DNA sequence of interest is operably linked to the promoter in an antisense orientation.
- 6. (Original) The genetic construct of claim 4, wherein the DNA sequence of interest is a coding sequence operably linked to the promoter in a sense orientation.
- 7. (Original) The genetic construct of claim 4, wherein the DNA sequence of interest is a coding sequence present in sense and antisense orientations in the construct.
- 8. (Original) The genetic construct of claim 4, wherein the DNA sequence of interest comprises a non-coding sequence operably linked to the promoter in a sense orientation.
- 9. (Currently amended) A genetic construct comprising in the 5'-3' direction:
 - (a) a promoter sequence;
- (b) a polynucleotide sequence <u>comprising a functional vascular tissue-specific E.</u>

 grandis cOMT promoter contained in SEQ ID NO: 113 or a polynucleotide sequence of claim

 2; [[1:]] and
 - (c) a gene termination sequence,

wherein the promoter sequence in (a) comprises a xylem-specific promoter sequence that is different from the polynucleotide sequence of (b), and said polynucleotide sequence of (b) is inserted in said construct as a direct or inverted repeat.

10. (Currently amended) A host cell comprising the genetic construct of claims 4, 8 and 9

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claim 4 or claim 8.

11. (Currently amended) The host cell of claim 10 [[9]], wherein the host cell is a plant cell.

- 12. (Currently amended) A plant comprising [[a]] the genetic construct of claims 4, 8 or 9 claim 4 or claim 8.
- 13. (Currently amended) A method for producing a plant with modified gene expression, comprising [[: (a)]] stably incorporating into the genome of the <u>a</u> plant [[a]] the genetic construct of claims 4, 8 or 9 elaim 4 or elaim 8.
- 14. (Original) A method for producing a plant having modified gene expression, comprising:
- (a) transforming a plant cell with a genetic construct of claim 4, wherein the DNA sequence of interest is a coding sequence;
- (b) cultivating the transgenic cell under conditions conducive to regeneration and mature plant growth; and
- (c) selecting plants that show upregulated or downregulated expression of the DNA sequence of interest as compared with a plant that has not been transgenically modified.
- 15. (Currently amended) A method for identifying a gene responsible for a desired function or phenotype, comprising:
- (a) transforming a plant cell with a genetic construct comprising a polynucleotide sequence comprising a functional vascular tissue-specific *E. grandis* cOMT promoter contained in SEQ ID NO: 113 or a polynucleotide sequence of claim 2;
- (b) cultivating the plant cell under conditions conducive to regeneration and mature plant growth to provide a transgenic plant; and
- (c) comparing the phenotype of the transgenic plant with the phenotype of a non-transformed plant,

wherein the gene encodes a polypeptide involved in secondary cell wall formation.